



Advisory for Care Providers

Exploring the Dangers of Positional Asphyxia

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Jane is on her way home from work. Her supervisor, Jim, calls you to say he noticed his candy bar was missing from the top of his desk and that Jane was seen near his desk just prior to the bus arriving.

Jane arrives home; you meet her at the door. Her breath smells of chocolate, the corners of her mouth are brown, and there's caramel stuck in her teeth.

You say to Jane, "You took Jim's candy bar off his desk this afternoon."

She becomes loud and defensive. "No I didn't!"

You say, "You're lying! There's chocolate on your face and caramel in your teeth."

She becomes increasingly upset, yelling that she isn't lying. She begins calling you obscene names for accusing her. She stomps around, slams her lunch box on the table, then shoves a chair under the dining room table.

You say to her, "Stop this and calm down. You know better than to slam things and call people names."

She is non-compliant and clearly a "behavior problem." Cursing and slamming things shows she's out of control. You know what you have to do. You glance at your co-worker, Joe, and give him the nod. Just as you were taught, you and Joe quickly grab her arms, place your hand on her back to ease her fall, and each put a leg behind hers. You nod again and you both push her backward so she's off balance. Ease her to the floor, flip her onto her stomach (so she can't hurt you, and so she doesn't choke), put her arms at her sides and lean across her back to prevent her from getting up. Now you explain to her that you wouldn't have had to do this if she would have calmed down when you told her to, but you'll let her up as soon as she is calm.

Jane's still putting up quite a fight, screaming, struggling to get up and trying to buck you off her. You ask Joe for help. Joe lies horizontally across her thighs and you lay across her back. After a few short minutes she stops fighting. Whew.... You tell her she's done a good job calming down and you're going to release her now. You slowly release one of her arms. Her nail beds are blue.... She doesn't seem to be breathing!

Safely using physical restraint

Recently, one of our families lost a child as the result of a prone restraint. The purpose of this article is to address the use of physical restraint, and when needed, how to practice it safely.

Often school and vocational organizations and residential agencies are trained to use face-down restraint procedures. This type of restraint greatly increases the risk of positional asphyxia, which, simply stated, means that the position of one's own body interferes with the restrained person's ability to breathe and the person cannot get enough oxygen.¹

Further, any interference with respirations, either by the positioning of one's own body or by an external force, may result in asphyxia. The danger of death is so great that many police departments are now conducting officer training of alternative restraints and have banned the use of prone restraint. According to EMT Charly Miller,² one case study showed the average time between beginning a prone restraint and the onset of death was only 5.6 minutes. Use of this restraint, even for short periods of time, presents serious risks. Multiple factors place a person at risk for death or serious injury from positional asphyxia.

Risk Factors and PWS

Primary risk factors for a person with Prader-Willi syndrome include:

- one's body position during restraint, particularly prone
- obesity³

- prolonged struggle or physical exertion⁴
- respiratory conditions, including asthma and bronchitis⁴
- pre-existing heart disease, including an enlarged heart and other cardiovascular disorders^{3,4,5}

General Risk Factors

When a prone restraint is used, each of the following factors may put a person at risk:

The individual may become upset, and his/her heart rate, blood pressure, and rate of breathing will increase. As the physical struggle occurs, the person becomes out of breath. More oxygen is needed to fuel the struggling muscles.

As the person's body is trying to get more oxygen to fuel the muscles, the person is placed in a face-down position on the floor, causing compression of the chest and limiting the person's ability to expand the chest cavity and breathe.^{5,6}

In addition, the abdominal organs may be pushed up, restricting movement of the diaphragm, further limiting the available space for the lungs to expand.^{6,7}

Also, excessive body weight makes it more difficult to move the chest wall and expand the lungs, especially when in the prone position.⁴

All muscles, including the heart, require oxygen to function. When the heart doesn't get enough oxygen, it may begin to beat faster, or out of rhythm, potentially leading to death. According to a case study,⁸ forensic pathologist Dr. Werner Spitz indicates that there is a greater chance of positional asphyxia with increased body mass and an enlarged heart.

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The amount of fat located under the navel is indicative of the thickness of the fat layer under the skin, and this is associated with excess fat inside the abdominal cavity. In the prone position, the excess fat, together with the abdominal organs, push against the diaphragm, causing it to be immobilized, and ultimately interferes with breathing. Dr. Spitz concludes that the more agitated a person is, the less time it will take for suffocation to occur.

As the individual continues to struggle, more weight is added and the grip is tightened to further gain control. As the person continues to struggle to get away, exhaustion is a factor and breathing becomes more difficult. Life is threatened.

PWS Adds to Risks

In children and adults with Prader-Willi syndrome, poor muscle tone and excess weight add to the risk of prone restraint. When an authority figure assumes a “control model” mentality, restraint may become the accepted way of handling a crisis. Restraint is then used as intimidation, punishment and convenience, or for control, as opposed to a final option if imminent physical danger exists.

As a parent exploring residential, educational, and vocational opportunities for your child, it is important to ask questions regarding the support staff’s philosophy in restraint use.

Are restraints used to prevent immediate harm or as threats, punishment, or control? If restraint is deemed appropriate by the team, is it part of an overall Behavior Support Plan, and have all applicable authorizations been completed? How have staff who will be implementing the restraint been trained? In extreme cases, restraint must be used to protect someone from imminent danger. Ultimately, it seems advisable to teach support staff safe and appropriate physical restraint techniques. This may prevent even well-intentioned support staff from harming someone out of anger, fear, or frustration.

Prevention is Key

Consistency, structure, trust and positive feedback are critical to building supportive relationships with people with Prader-Willi syndrome. Some additional positive strategies may include:

- Always reward the positive! High-fives, enthusiastic praise and small tangible reinforcers go a long way.
- Warn in advance when there is going to be break in the routine or a schedule change.
- Do not nag! This may only increase agitation and frustration.
- Acknowledge when you are wrong and apologize. It is helpful to know that we all make mistakes.
- Build a relationship that accepts and values each person.
- Acknowledge and empathize when a situation is unfair or upsetting, and follow up with appropriate responses and potential solutions.

- Anticipate questions and try to predict solutions during transition times.
- Don’t hold a grudge! Learn to treat each minute as a new opportunity. Sometimes, it’s the only way to survive.
- Never promise something that has the potential to change.
- Handle sneaking food or other crises in a matter-of-fact way. It’s their nature to try and it’s our job to prevent!
- Don’t minimize the difficulty the person is having. While it may seem trivial to you, it can be of great importance to an individual with Prader-Willi syndrome.
- Anticipate the outcome you are trying to generate. For example, is there value in getting the person to admit to telling a tale? Avoid unnecessary power struggles simply to prove a point.

People providing services and supports to those with Prader-Willi syndrome are strongly encouraged to explore alternatives to prone restraint. Restraint use should be considered as a safety response, not as a therapeutic technique or substitute for a comprehensive treatment plan. It is critical to remember that when all is said and done, this is a human life — someone’s child, sibling, grandchild and friend — and this person, too, has value.

References

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- 8 Case study in Protection and Advocacy, Inc. Investigations Unit report by Dr. Werner U. Spitz, “The Lethal Hazard of Prone Restraint: Positional Asphyxiation,” Publication No. 7018.01, p. 26, Oakland, CA, April 2002.

